KLOUB, J.

Buildings and machines and devices used in the recent building of dams in Switzerland.

P. 190, (Mechanisace) Vol. 4, No. 6, June., 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

KLOUB, J.

Rock-filled dams with packing at the upstream side. p. 257.

INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha, Czechoslovakia.
Vol. 7, no. 7, July 1959

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 11, Nov. 1959
Uncl.

Klaus, J.

Hydration in hydraulic engineering. p. 385.

INZENYRSKE STAVBY. (Ministerstvo stavebnictvi)
Praha, Czechoslovakia   Vol. 7, no. 10, Oct. 1959.

Monthly List of East European Accession, (EEAI), LC, Vol. 8, No. 12, Dec. 1959
Uncl.

KIDUB, Josef, ins. dr.

Development of hydraulic power engineering in Brasil. Vodni hosp 14 no.10:395-397 '64.

KLOUB, Miroslav, nadrotmistr

The bearing is accurate. Starsh.-serzh. no.4:16 Ap '62.
(MIRA 15:4)
(Czechoslovakia--Air force)

KLOUB, Vaolav, inz. arch.

Industrial enterprises in the United States. Tech praca 17 ro.2;
118-120 F '65.

KLOUB, Vaolav, inz, arch.

Industrial enterprises of the United States. Pt.3. Tech praca
17 no.4:263-267 Ap '65.

KLOUBEK, J.

B-I-9

B. M. V.
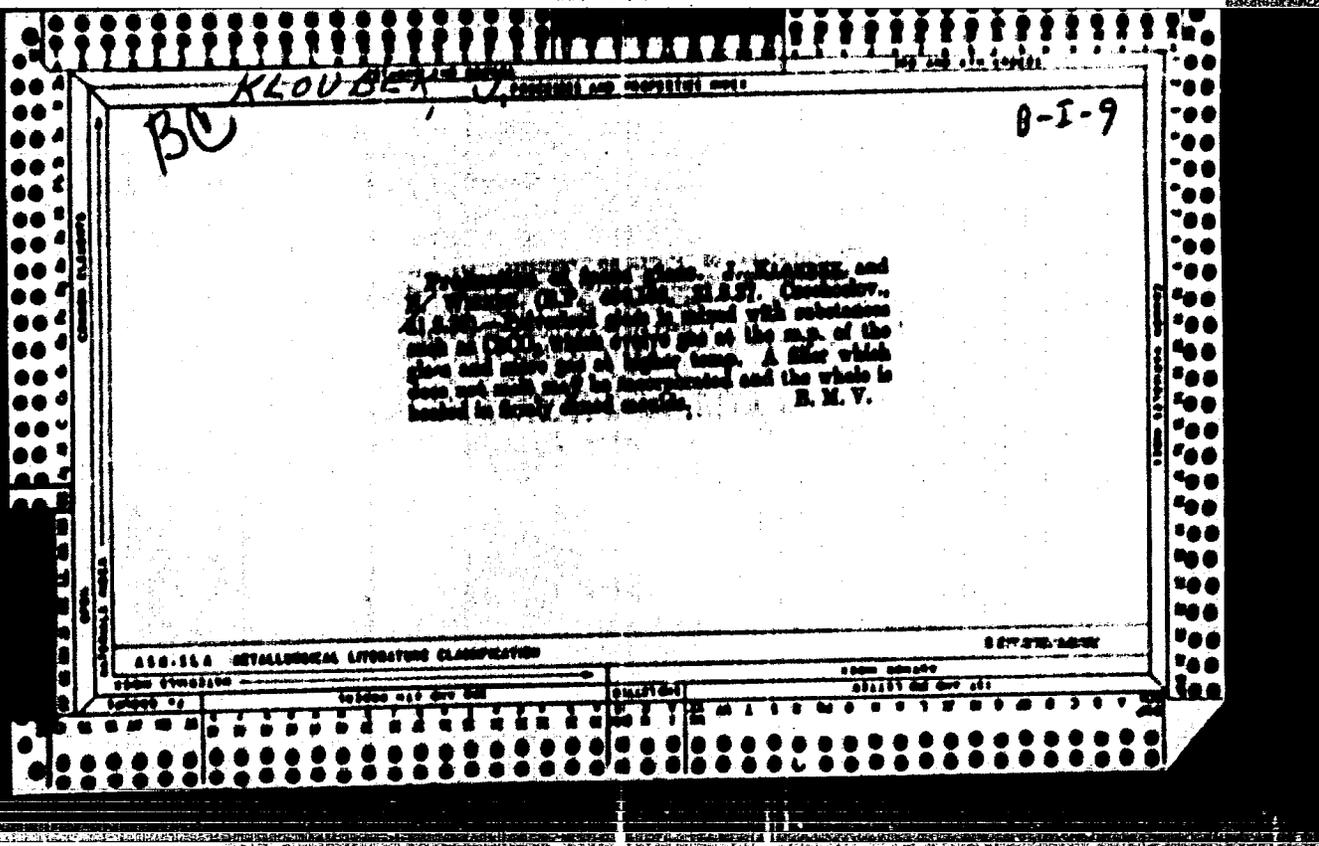
Kloubek

CHECHO-SLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry.   E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19193.

Author : Lukesh, Kovarzh, Dlaha, Kloubek
Inst   :
Title   :   2 Pyperidsines. V. Synthesis N-methyl-2-phenacyl-
           piperidine.

Orig Pub: Chem. Listy, 1956, 50, No 2, 278-281. Sb. Chekhosl. Khim.
           Rabot, 1956, 21, No 5, 1324-1327.

Abstract: Since the ō-methylaminovalerinic aldehyde (I), obtained
           before as a dimethylacetal (II) (see part IV), presents
           seemingly, the initial product of the alkaloid sedamine
           /(product of reduction N-methyl-2-phenacylpiperidine
           (III)/, the condensation of I in physiological conditions
           with benzoylacetic acid (IV), which leads to III, is
           studied. I is isolated from II by titration with IM HCl.

Card   : 1/3

Card   : 2/3

Klooberg Jan

Configuration of optically active N-methylpipecolic
Acid. Kotool L. (et. la...

N-methylpipecolic acid II) was detd. by comparison of ...
and II, prepd. by hydrogenation of 1-methyl-2-carbethoxy-
pyridinium salts and op... and resolution of the racemate
with I and II, prepd. ... methylating with ... and
optically active (+ ...) ... and ... pipecolinic acid. IV ...
obtained by hydrogenation of picolinic acid (v...) I was
found to belong to the b... series. Treating 1 g. Et picolin
ate (VI) by 110-12.5° obtained in 78% yield from V and
HCl in EtOH, with 11.5 g. MeI in 10 ml. C₆H₆ overnight at
room temp., seeding the soln., and allowing to stand 1
month gave 2.85 g. 1-methyl-2-carbethoxypyridinium iodide
(VII), m. 107° (from 1:1 EtOH-C₆H₆). Refluxing 5.3 g.
VI with 45.5 g. p-MeC₆H₄SO₃Me and 29.8 ml. EtOH ...
hrs. on the steam bath gave after seeding ... the ...
AcOEt, 60 1 g. 1-methyl-2-carbethoxypyridinium ...
sulfonate (VIII), m. 145° ... hydrogenation of 1.85 g. VII ...
100 ml. EtOH over 0.1 g. PtO₂ at 1000 mm. at room temp.
(3 hrs.) gave the HI salt of Et N-methylpipecolinate IX, m.
121-2° (from AcOEt). Hydrogenation of 8.1 g. VIII in
600 ml. EtOH over 0.5 g. PtO₂ at 1000 mm. at room temp.
7 hrs. gave 21.75 g. IX, m. 83.4°. Stirring 21.75 g. IX 5
days at room temp. with 16.56 g. Ba(OH)₂·8H₂O in 100
ml. H₂O, removing the Ba with 5% H₂SO₄, and evapg. the
filtrate in vacuo, gave 16.6 g. dl-N-methylpipecolinic acid
(X), m. 207°; HCl salt, m. 243.4° (from EtOH and Et₂O).
Dissolving 8 g. X in 50 ml. hot 1:1 EtOH and AcOEt,
adding 16 g. (−)-dibenzoyltartaric acid II) in 20 ml.
AcOEt-EtOH mixt., allowing the crystals to deposit 24
hrs. (15 g.), and crystg. them 5 times from EtOH and
Et₂O gave 4.5 g. 1-dibenzoyltartrate, m. 175.1° (decompn.).

1/2

Luket, Rudolf; Kloubek, Jan

Klouber, J.

CZECHOSLOVAKIA / Organic Chemistry. General and   O
         Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Author : Rudolf Lukes, Jan Kovar, Jan Kloubek, Karel Blaha.
Inst : -
Title : Configuration of Nitrogen Containing Substances.
         IV. Absolute Configuration of Optically Active
         β-Amino-β-Phenylpropionic Acid.

Orig Pub: Chem. listy, 1957, 51, No 8, 1501-1509.

Abstract: The absolute configuration of optically active
         substituted β-amino-β-phenylpropionic acids was
         established by the correlation with α-aminophenyl-
         acetic acids, the configuration of which is known.

Card 1/11

Abstract: The lengthening of the racemate chain or of the
         optically active α-aminophenylacetic acid
         according to Arndt-Eistert reaction did not
         succeed, because chlorides of corresponding
         N-formyl- or N-tosylsubstituted acids did not
         produce diazoketones. 3.2 g of α-phthalimi-
         dophenylacetic acid (I) chloride, melting point
         143 to 144° (from benzene) is obtained of 4 g
         of I and 10 ml of $SOCl_2$ (1 hour boiling), that
         acid chloride, interacting with ether solution
         of CH_2N_2, produces α-phthalimidophenylacetyl-
         diazomethane (II), yield 88%, melting point
         135.5 to 136.5° (from CH_3OH). Only resin-like
         products are obtained by boiling II with Ag_2O

Card 2/11

CZECHOSLOVAKIA / Organic Chemistry. General and
        Theoretical Topics of Organic Chemistry.

O

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: at below 0° and 2.5 hours of aging at 20°) the
mass is cooled again, 1.75 g of IV in 5 ml of C_5H_5N
is added, and after aging (3 hours at 0° and 20
hours at 20°), 2.5 g of a mixture of V and 2-tosyl-
amino-2-phenyl-1-tosyloxyethane (VI) was obtained;
the melting point of the mixture is 95 to 97° (from
aqueous alcohol). The solution of 2 g of V + VI
in 10 ml of dioxane is heated 20 min. with the
solution of KCN in 10 ml of ethyleneglycol, and
1.36 g of β-tosylamino-β-phenylpropionitryl (VII)
is obtained, melting point 145 to 145.5°. At the
heating (90 min. at 55 to 57°) of III solution in
mixed dioxane and alcohol (2 : 1) with 10%-ual
H_2O_2, β-tosylamino-β-phenylpropionamide (VIII)
is produced, yield 82%, melting point 214 to 215°

Card 4/11

10

CZECHOSLOVAKIA / Organic Chemistry. General and
        Theoretical Topics of Organic Chemistry.

O

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: (from acetone). VIII is not reduced by $LiAlH_4$,
it does not react with NaOBr solution at heating,
and is not saponified. D-(-)-2-amino-2-phenyleth-
anol, melting point 74 to 76°, $[\alpha]^{18}_D$ = -24.5°
(c = 4.90, CH_3OH), and L-(+)-2-amino-2-phenyleth-
anol (XI) are produced correspondingly by reducing
D-(-)- and L-(+)-α-aminophenylacetic acids (IX
acid, X acid) with $LiAlH_4$ (RZhKhim, 1955, 28771).
A mixture of ditosyl- and chloroderivatives (melt-
ing point of the mixture 85 to 101°, $[\alpha]^{16}_D$ =
= 28.4°) is obtained of X and IV similarly as in
the case of mixed V and VI; the derivative mixture

Card 5/11

CZECHOSLOVAKIA / Organic Chemistry. General and   0
          Theoretical Topics of Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: is converted into D-(-)-β-tosylamino-β-phenyl-
          propionitryl [D-(-)-XII], yield 17%, melting point
          143 to 144°, $[\alpha]^{18}_D$ = -31.6° (c = 1.17, alcohol).
          Similarly to VIII, D-(-)-β-tosylamino-βphenyl-
          propionamide [D-(-)-XIII] is obtained from XII,
          yield 62%, melting point 238 to 240° (from acetone-
          alcohol, 5 : 1), $[\alpha]^{19}_D$ = -62.3° (c = 1.47, C_5H_5N).
          Similarly to XII, L-(+)-XII, melting point 143 to
          145° (from benzene), $[\alpha]^{20}_D$ = +29.9° (c = 1.77,
          alcohol), is synthetized of impure XI via a mix-
          ture of tosyl derivatives with a yield of 27%;
          L-(+)-XIII (XIV) is obtained from L-(+)-XII
          similarly to VIII, yield 49%, melting point 239
          to 241° (from acetone), $[\alpha]^{20}_D$ = +67.4° (c =
          = 1.81, C_5H_5N).   Nthyl ester of β-amino-β-

Card 6/11

11

CZECHOSLOVAKIA / Organic Chemistry. General and
        Theoretical Topics of Organic Chemistry.   C

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: and others, Ber., 1910, 43, 2020), D-(-)-β-formyl-
amino-β-phenylpropionic acid is produced, melting
point 134 to 135° (from water), $[\alpha]^{22}_D = -118.2°$
(c = 1.2, alcohol), it is converted with HCl in
alcohol into D-(-)-XV (XVII), yield 71%, boiling
point 107°/1.8 mm, $[\alpha]^{18}_D = -13.2°$, $n^{20}_D = 1.5130$,
$d_4^{18} = 1.0659$. Ethyl ester of β-tosylamino-β-
phenylpropionic acid (XVIII) is prepared of XV
and IV by heating 1 hour in C_5H_5N in a water bath,
yield 53%, melting point 79° (from benzene -
petroleum ether). After having been heated 15
hours with 8 n. NH_3 in alcohol in a sealed tube,
XVIII produces VIII (95%). Similarly to XVIII,
D-(-)-XVIII (XIX) is produced of XVII and IV; XIX

Card 8/11

12

CZECHOSLOVAKIA / Organic Chemistry. General and
        Theoretical Topics of Organic Chemistry.   C

Abs Jour: Ref Zhur-Khimiya, No 18, 60814.

Abstract: is an oil, $[\alpha]^{18}_D = -30°$ (c = 3.5, alcohol). XIII
is produced at the interaction of XIX with NH_3 in
alcohol. It is proved by the above that the con-
figuration of (-)-XVI at the asymmetric C is the
same as that of IX (compare with RZhKhim, 1957,
22890). C_6H_5COCl and XV produce ethyl ester of
β-benzoylamino-β-phenylpropionic acid (XX),
yield 80%, melting point 111 to 112° (from 50%-ual
alcohol). D-(+)-XX (XXI) was similarly prepared
of XVII, melting point 119°, $[\alpha]^{19}_D = +31.6°$ (c =
= 1.1, $CHCl_3$), $[\alpha]^{21}_D = -2.6°$ (c = 1.2, alcohol).
β-benzoylamino-β-phenylpropionamide, yield 65%,

Card 9/11

CZECHOSLOVAKIA / Organic Chemistry. General and
        Theoretical Topics of Organic Chemistry.   C

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60814.

Abstract: melting point 240° (from alcohol) is produced by
heating 0.87 g of XX with 60 ml of 11 n. NH_3 in
alcohol for 32 hours to 50° in an autoclave.
Similarly, D-(+)- β-benzylamino- β-phenylpropion-
amide (XXII), melting point 260° (from alcohol),
$[\alpha]^{21}_D = +26°$ (c = 0.17, alcohol) is produced of
XXI. XXII does not show any optical activity in
C_5H_5N. β-benzoylamino- β-phenylpropionic acid,
melting point 195°, is produced by saponifying XX
with aqueous-alcohol NaOH. XXII with KBrO solu-
tion (10 min. of heating to 80°) produces D-(-)-
4-phenylimideazolidone-2 (XXIII), yield 31%,
melting point 200° (from water), $[\alpha]^{23}_D = -35°$
(c = 0.4, water). 1-Phenyl-1-benzoylaminoethyl-

Card 10/11

13

Country	: Czechoslovakia
Category=	: Organic Chemistry – Theoretical Organic Chemistry. G-1
Abs. Jour.	:
	19284
Author	: Likes, R.; Kovar, J.; Kloubek, J.; Blaha, K.
Institut.	:
Title	: Configuration of Nitrogen-Containing Substances. IV. Absolute Configuration of Optically Active Beta-Amino-Beta-Phenyl-Propionic Acid.
Orig. Pub.	: Collect. Czechosl. chem. commun., 1958, 23, No 7, 1367-1376
Abstract	: See RZhKhim, 1958, 60814.

Card: 1/1

F-3. - G-1

KLOUBEK, J.

AUTHORS: Lanzl, B., Kloubek, J., Kraif, J. and Bláha, K.

TITLE: A Note on the Rose Synthesis of Dyazine (K Mannové syntéze kyseliny)

PERIODICAL: Chemické listy, 1958, Vol 52, Nr 11, pp 2081 - 2089 (Czechoslovakia)

ABSTRACT: The authors state that they are able to show that the Rose (Ref 1) synthesis of kyrpine (I) actually does not yield a product identical to the natural alkaloid but is the isomeric tetrahydroketone (XII).

Card 1/2

the problems of Rose's "kyrpine". They conclude that there is no evidence for the "Rose reaction", and that the first actual synthesis of kyrpine is that of J. Born (Com. Chem. 1945, 20, 196). Collection of the Czechoslovak Chemical Society, 1957, 12, 266). There are 26 references; 5 of which are Czech, 1 Soviet, 13 German and 7 English.

ASSOCIATION: Laboratoř heterocyklických sloučenin, Československé akademie věd (Institute of Heterocyclic Compounds)

SUBMITTED: March 26, 1958

Card 2/2

KLOUBEK, J.; ETTEL, V.

Reaction of sulfur monochloride with chlorinated ethylene. Coll Cz
chem 26 no.2:515-522 F '61.   (EEAI 10:9)

1. Abteilung fur organische Synthesen, Institut fur Geochemie und
anorganische Rohstoffe, Tschechoslovakische Akademie der Wissenschaften,
Prag.

    (Sulfur chlorides)   (Ethylene)   (Chlorination)

KLOUBEK, Jan

KLOUBEK, J.; ETTEL, V.

On the isolation and identification of 1-methyl-1-ethyl-2-
phenyl-2-tolylethyls from the waste product of toluene
fraction refining. Coll Cs Chem 28 no.2:397-403 F '63.

1. Institut fur Geochemie und mineralische Rohstoffe,
Tschechoslovakische Akademie der Wissenschaften, Prag.

KLOUBEK, J; MARHOUL, A.

Czechoslovakia

Institute of Geochemistry and Mineral Raw Materials,
   Czechoslovak Academy of Science -- Prague - (for all)

"On Bringing About Aryl-N, N-Bis-(2-Hydroxyethyl) Sulfo-
   namide and the Bilding of Arylsulfomorpholide."

2

KLOUBEK, J.; MARHOUL, A.

On the production of aryl-N,N-di(2-chloroethane) sulfonamides
and their reaction with potassium glycolate. Coll Cz Chem 28
no.4:1076-1079 Ap '63.

1. Institut fur Geochemie und mineralische Rohstoffe,
Tschechoslowakische Akademie der Wissenschaften, Prag.

L 42260-66   RM

ACC NR: AP6031485   SOURCE CODE: CZ/0008/66/000/004/0470/0478

AUTHOR: Kloubek, Jan

ORG: Geological Institute, CSAV, Prague (Geologicky ustav CSAV)

TITLE: Importance of the area of a chromatographic spot

SOURCE: Chemicke listy, no. 4, 1966, 470-478

TOPIC TAGS: chromatography, quantitative analysis

ABSTRACT: Apart from the relative rate of movement of the sorbate in a chromatogram, the volume of sorbent through which the sorbate is distributed is also important in quantitative determinations. The area of the chromatographic spot is the factor most easily used for a quantitative evaluation of an analyzed substance. When the thickness of the chromatographic layer remains constant the area is directly proportional to the volume of the sorbent. When this fact is used for analysis, a calibration curve is used. The number of theoretical plates required for a separation is indirectly proportional to the size of the original zone. The amount of the solution applied to a chromatogram is directly proportional to the area of the resulting zone, the area being a logarithmic function of the amount of the sorbate. The causes and manners of evaluation of errors are described. The length of the spot is discussed. Orig. art. has: 12 formulas. [JPRS: 36,464]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 026

Card 1/1

KLOUCEK, B.; GASPARIC, J.; OBRUBA, K.

Determination of hydroxyl groups by acetic anhydride
acetylation in the presence of perchloric acid as
catalyzer. Coll Cz Chem 28 No.6:1606-1609 Je '63.

1. Forschungsinstitut fur organische Synthesen, Pardubice-
Rybitvi.

CZECHOSLOVAKIA

GASPARIC, J; KLOUCEK, B.

Research Institute for Organic Synthesis (Vyzkumny ustav
fur organische Synthesen), Pardubice-Rybitvi-(for both)

Prague, Collection of Czechoslovak Chemical Communications, No 1,
January 1966, pp 106-112

"Identification of organic compounds. Part 29: On the constitutional
determination of arylide aromatic carboxylic acids."

KLOUCEK, Frantisek; ZOUBEK, Ratmir

Familial retinoblastoma. Cesk.ofth.16 no.7:412-419 N'60.

1. II. ocr.i klinika KU v Prase, prednosta akademik dr. J.Kurz.
Ocni klinika KU v Hradci Kralove, prednosta prof.dr. M.Klima.
        (NEUROEPITHELIOMA genetics)

DIVISOVA, G.; KLOUCEK, F.

Certain considerations on anomalous correspondence. Cesk.ofth.17
no.2:85-89 Mr '61.

1. II. ocni klinika v Praze, prednosta akad. J.Kurz.
      (STRABISMUS)

DIVISOVA, O.; KLOUCEK, P.

Relation of surgery of strabismus to extramacular fixation.
Cesk.ofth.17 no.2:90-95 Mr '61.

1. II. ocni klinika KU v Praze, prednosta akademik J. Kurz.
(STRABISMUS surg)

KLIKA, Eduard; KLOUCEK, Frantisek

The lining of the anterior chamber in the rabbit's eye and its reaction under experimental conditions. Cs morfologie 9 no.3:282-293 '61.

1. Histologicky ustav fakulty vseobecneho lakarstvi Karlovy university v Prase, prednosta akademik Jan Wolf a II. ocni klinika fakulty vseobecneho lakarstvi Karlovy university v Prase, prednosta akademik Jaromir Kurs.

(EJE)

KLIKA, Eduard; KLOUCEK, Frantisek

Structure of the anterior surface of the iris. (Comparative studies). Cesk. morf. 10 no.2:234-241 '62.

1. Histologicky ustav fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta akademik Jan Wolf, II, ocni klinika fakulty vseobocneho lekarstvi University Karlovy v Praze, prednosta akademik Jaromir Kurz.

(IRIS anat & histol)

DIVISOVA, Gabriela; KLOUCEK, Frantisek

Diagnostic possibilities in anomalous retinal correspondence. Cesk. oftal. 18 no.3:175-179 My '62.

1. II. ocni klinika fak. vseob. lek. Karlovy university v Praze, prednosta akademik J. Kurz.
(STRABISMUS diag)

KLOUCEK, Pr.

Histological findings following the irradiation of retinoblastoma.
Cesk. oftal. 18 no.6:411-418 N '62.

1. II. ocni klinika fak. vseob. lek. University Karlovy v Prase,
prednosta akademik J. Kurz.
         (RETINOBLASTOMA)   (RADIOTHERAPY)

KLICKA, Eduard; KLOUCEK, Frantisek

The structure of the front surface of the iris. Cs morfologie 10 no.2: 234-241 '62.

1. Histologicky ustav fakulty vseobecneho lekarstvi university Karlovy, Praha; Ocni klinika fakutly vseobecneho lekarstvi university Karlovy, Praha.

*

KLOUCEK, P.

Onkocytoma of the caruncle. Cesk. oftal.19 no.2:117-119 Mr '63.

1. II. ocni klinika fakulty vseobecneho lekarstvi KU v Praze,
prednosta akademik J. Kurz.
        (EYE NEOPLASMS)   (ADENOLYMPHOMA)

KREJCI,L.; OBENBERGER, J.; KLOUCEK,F.; LEHKY,B.; JANSA,J.

Experiences with the new neutralization substance DETA in acid burns of the eye. I. Experimental part. Cesk. oftal. 20 no.4:314-320 Jl'64.

1. II. ocni klinika fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze (prednosta: akademik J.Kurz); Laborator fysiologie a patofysiologie zrakoveho analyzatoru CSAV [Cesko-slovenske akademie ved] v Praze,(vedouci: akademik J.Kurz) a Zavodni zdravotnicke stredisko Spolku pro chemickou a hutni vyrobu, n.p. v Usti n.L., (vedouci lekar: MUDr. B.Lehky).

KLOUCEK, F.

Some new data on the morphology and ultrastructure of the trabecula
of the iridial angle. Cesk. oftal. 20 no.5:337-342 S '64.

1. II ocni klinika fakulty vseobecneho lekarstvi Karlovy University
v Praze (prednosta akademik J. Kurz).

MYSKA, V.; OTRADOVEC, J.; KLOUCEK, F.; SOBRA, J.; PROCHAZKA, B.

Mucocutaneous form of eosinophilic xanthomatous granuloma with severe corneal involvement in an adult man. Cesk. oftal. 20 no. 5:360-368 S '64.

1. II ocni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta akademik J. Kurz'; III interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta akademik J. Charvat) a IV. interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. M. Fucik).

KLAREK, F.

The endothelium of the human cornea during growth and aging. Sborn. lek. 67 no.6:177-185 Je'65.

1. II. ocni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (predrosta: akademik J. Kurz).

KLOUCEK, Jaromir, ins.

Automatic drawing devices. Doprava no. 2:136-139 '64.

KLOUCEK, Jaromir, inz.; KOZLER, Jaroslav, inz.

Basir principles of automatic dispatching, and operational
program of an automatic computer. Doprava no.5:347-358 '63.

COZL, Jiri, inz.; KLONDEK, Jaromir, inz.

Establishment of commercial graphs of two-track railroad transportation on automatic computers.   Doprava no.1:29-43 '63

COZL, Jiri, ins.; KLOUCEK, Jaromir, ins.

Automation of the dispatching system at railroad junctions.
Doprava no. 1:59-67 '64.

KLOUCEK, Josef; VLCEK, Jaroslav

Draft of a symbolic system for formulating the tasks of processing collective economic informations. Stroje na sprac inf 8:181-187 '62.

1. Vyakumny ustav matematickych stroju, Praha.

KLOUCEK, Z.; BILEK, F.

A case of recurrent jaundice caused by an anomaly of the biliary
tract. Congenital cystic dilatation of the common bile duct.
Rozhl. chir. 44 no.12:806-810 D '65.

1. Chirurgicke oddeleni nemocnice v Kutne Hore (vedouci MUDr.
Z. Kloucek).

MARTINU, Kamil, MUDr.; KLOUCKOVA, Alena

Epidemic keratoconjunctivitis in Prague during May-September,
1955. Cesk. epidem. mikrob. imun. 5 no.2:90-93 Apr 56.

1. Krajska hygienicko-epidemiologicka stanice UNV Praha.
   (KERATOCONJUNCTIVITIS, epidemiology,
       in Czech. (Cz))

KLOUCKOVA, A.

CZECHOSLOVAKIA, Virology - Viruses of Man and Animals.   E
                     Viruses of Hepatitis.

Abs Jour   :   Ref Zhur Biol., No 6, 1959, 23884

Author   :   Krasna, V., Radkovsky, J., Klouckova, A.
Inst   :   -
Title   :   Evaluation of the Effectiveness of Gamm-Globulin as a
                Remedy in Prophylaxis of Infectious Hepatitis in Prague
                during the Period 1953-1956.

Orig Pub   :   Zh. Gigyeny, epidemiol., mikrobiol. i immunol.
                (Czechosl.), 1957, 1, No 4, 356-364

Abstract   :   No abstract.

Card 1/1

- 32 -

L 37441-65   SPA/EWP(w)/EWP(t)/EPF(n)-2/EWA(d)/EWP(v)/EIR/T/EWP(t)/EWP(k)/EPA(bb)-2/
EWP(b)   Paa-4/Pf-4/Pa-4   JD/WW/EM

ACCESSION NR: AP5018841   CZ/0059/64/000/004/0031/0038

AUTHOR: Kloud, J.(Engineer)

TITLE: Effect of the temperature field on the life of gas turbine blades

SOURCE: Letnany. Vyzkumny a zkusebni letecky ustav. Zpravodaj VZLU, no. 4,
1964, 31-38

TOPIC TAGS: gas turbine, temperature field, turbine blade, life, heat stress, blade
failure

ABSTRACT: Heat stress in aviation gas turbine blades is described as due to thermal
gradients created by alternate heating and cooling whenever the engine is started,
accelerated, decelerated, or stopped. When heat stress is superimposed on centri-
fugal and vibration stress over a long period, it can cause metal fatigue and blade
rupture. When blades fail after short periods of operation, the cause is usually abnormal
operating temperatures, which occur in "hot starts", too rapid acceleration, at high
altitudes when the compressor is less effective, or when the pilot exceeds the maximum
permissible rpm. Heat gradients may cause metal creep, may affect the trailing
edge of a blade more than the leading edge, may cause permanent distortion of blades,
or start cracks in the most heavily stressed edge. These effects are described in detail
Card 1/2

L 57441-65

ACCESSION NR: AP50.5541

and are represented in graphs and diagrams. Heat fields around blades in a well-regu-
lated turbine are also diagrammed, but it is pointed out that heat variations in the gas
do not affect the metal in the blades at medium or high vibration rates (up to 3 cycles/
sec.) except in very thin blade edges (0.5 mm) where temperature amplitudes may
equal about 15% of the gas heat variations. Two types of apparatus, described and
photographed, are used to test actual blades for heat stress. All tests have demonstrated
that the form and dimensions of turbine blades are more important in controlling heat
stress than the physical properties of the various metals and alloys of which they are
made. Orig. art. has: 16 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: PR

NO REF SOV: 002   OTHER: 004

KLOUD, Jan, ins.

Thermal stress of combustion turbine rotor blades. Zpravodaj
VZLU no.1:33-38 '63.

KLOUD, Jan, inz.

Effect of temperature field on t'e service life of gas turbine
impeller blades. Zpravodaj VZLU no.4:31-38 '64.

KLOUDA, A.

Catalytic reductive alkylation of amines. A. Maksic, L. Nozar, and A. Klouda (Vysk. ustav org. synthes, Pardubice-Rybitvi, Czech.). Chem. Listy 50, 1303-9 (1956) — When Langenbeck catalysts (C.A. 47, 6008. and 49, 1085f) were used at 100 atm. and 50°-10°, the yields of N-itbylpiperidine averaged 83.3 and 85.9%, resp., compared with 87.9% obtained with Raney Ni. Prepn. described of both types of catalysts.   I. L. Klanek

KLOUDA, Milan

"ABC world airways guide." Reviewed by Milan Klouda.
Letecky obzor 8 no.7:203-206 Jl'64.

KLOUDA, M.

Lethal course of the Kasabach-Merrit syndrome (hemangioma and thrombocytopenia) in an infant. Cesk. ped. 20 no.12:1097-1100 D '65.

1. Detske oddeleni Krajske nemocnice s poliklinikou v Ceskych Budejovicich,(vedouci - MUDr. L. Sabata).

KLOUDA, Miroslav

Histamine skin tests in epileptic children. Cesk.psychiat.56 no.5:
318-322 O'60.

1. Detska psychiatricka lecebna v Oparanech.
   (EPILEPSY diag)
   (HISTAMINE pharmacol)

KLOUDA, Milan

Problems of supersonic transport. Letecky obzor 6 no.3:70-71 '62.

KLOUDA, Milan

Drafting of the time table for airlines. Letecky obzor 6
no.5:141-143 My '62.

KLOUDA, MIROSLAV

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees:

Affiliation:

Source: Prague, Prakticky Lekar, Vol 41, No 11, 1961, pp 515-516.

Data: "Treatment of Labliozis With Acrinile."

Authors: KLOUDA, Miroslav, MD, Child Psychiatric Hospital (Detska psychi-
                atricka lecebna), Oparany.

        VOSTA, Jaroslav, PhMr, Parasitological Laboratory, KHES /Krajska
                hygienicko-epidemiologicka stanice/ (Parasitologicka
                laborator KHES), Ceske Budejovice.

VOSTA, J.; KOLAR, J.; KLOUDA, M.; PETRU, M.

Our experience with modern anthelmintics. III. Therapy of the infesta-tion with the tapeworm Hymenolepis nana with "Cestodin" and its com-parison with Acranil. Cas.lek.cesk 100 no.37:1169-1171 15 S '61.

1. Parasitologicka laborator KHES - C. Budejovice, prednosta MUDr. J. Vosta. Detska psychiatricka lecebna v Oparanech, prednosta MUDr. Vl. Vojtik. Laborator pro klinickou parasitologii fakultni nemocnice v Praze, prednosta akademik O. Jirovec.

(ANTHELMINTICS ther)   (TAPEWORM INFECTION ther)

KLOUDA, Miroslav, ins.

Modernization of the Bratislava-Ivanka airport. Letecky obzor
6 no.1:19-21 Ja '62.

L 25826-66

ACC NR: AP5024840

SOURCE CODE: CZ/0078/65/000/009/0010/0010

AUTHOR: Klouda, Pavel (Prague)

ORG: none

TITLE: Czech patent No. 589-65 [Transistorized amplifier]

SOURCE: Vynalesy, no. 9, 1965, 10

TOPIC TAGS: transistorized amplifier, amplifier design, transistor, collector emitter junction

TRANSLATION: The transistorized amplifier of an alternating signal is characterized by the fact that the working point of one or several transistors is located close to the bend of the collector characteristic so that there will be d.c. voltage in the current direction on the current-to-base transition and a d.c. voltage with polarity in the current direction will remain on the emitter-to-base transition. The absolute value of the d.c. voltage of the collector with respect to the base is lower than the absolute value of the d.c. voltage of the emitter with respect to the base. The d.c. current passes through the collector transition, and the shut-off and emitter transitions in the current direction.

SUB CODE: 09   SUBM DATE: 28Jan65

Card 1/1

ZACH, Milos, ins.; KLOUDA, Rudolf

Permanent magnetic circuits of magnetrons. Sbor vak elektrotech
3:74-94 '61.

ZACH, Milos, ins.; KLOUDA, Rudolf

Measurement of some magnetic quantities. Sbor vak elektrotech
3:95-105 '61.

KLOUDOVA,   H.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their   H-6
          Application. Safety and Sanitation.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5185.

Author : Spurny, Kvetoslav; Kloudova, Helena.
Inst   :
Title   : Experiment of Dosimetry of X-Ray and Γ -Ray Radiations
           and of Determination of Concentration of Radioactive
           Aerosols in Operators' Positions.

Orig Pub: Pracovni lekar, 1958, 10, No 2, 167-170.

Abstract: The work in the sphere of dosimetry and determination
           of radioactive aerosols using simple equipment and
           based on known methods modified by the authors is
           described. The x-ray and γ -ray radiations were
           measured in separable ionization chambers with a modi-
           fied Wulf electrometer. The autoradiographic method

Card   : 1/2   USTAV FYSIKALNI CHEMIE CsAV
                 a LABORATORE HES-UNV v PRAZE

KLCUS, V.

KLCUS, V. - Polarographic atalytic effect of protenins in glycine buffers
    containing cobalt. p. 213. Vol. 50, no. 2, Feb. 1956
    CHEMICKE LISTY (Ceskoslovenska akademie ved. Chemicky ustav)
    Praha, Czech.

KLOUZAK, Miroslav, ins.

May anniversary of the liberation of Czechoslovakia and the
development of Czechoslovak electrical engineering.
Elektrotechnik 17 no.5:125 My '62.

Klouzal, M.

Air-blast circuit breakers of high breaking
capacity. M. KLOUZAL, ... Obzor, 44,
No. 1, 42-9 (1955) in Czech.

Two types of air-blast circuit breakers produced in
Czechoslovakia are briefly described and illustrated,
namely the types VMT 1000, 2000 and 3000. Their
applications and performance data are given in
tables and compared with those of German, French
and U.K. air-blast breakers of the corresponding
classes.   ELECTRICAL RESEARCH ASSOCIATION

KLOVACH, Y.

KLOVACH, Y.

Soviet coal [with English summary p.42]. Vnesh.torg. 27 no.3:24-25
'57.   (MIRA 10:5)

(Coal)

KLOVATSKIY, A.

      The question has been put in time. Mashinostroitel' no.10:31
O '63.   (MIRA 16:12)

KLOVATSKIY, P.G.

Using hour norms in planning and accounting in auxiliary plants.
Avt.i trakt.prom.no.12:1-3 D '56.   (MLRA 10:2)

1. Khar'kovskiy traktornyy zavod.
   (Factory management)

KLOVATSKIY, V. (Poltava)

Improve direct relations. Sov.torg. 36 no.12:44-45 D '62.

(MIRA 16:1)

(Poltava Province—Wholesale trade)

KLOVATSKIY, Y.

Wholesale trade should be under the administration of state trade organizations. Sov. torg 33 no.10:40 O '59.
(MIRA 13:1)

1.Zamestitel' nauchal'nika planovo-ekonomicheskogo otdela oblastnogo upravleniya torgovli, Poltava.
(Wholesale trade)

KLOVATSKII, Y.

Let's simplify the method of planning. Sov.torg. 33 no.6:55 Je '60. (MIRA 13:7)

1. Zamestitel' nachal'nika Planovo-ekonomicheskogo otdela Oblastnogo upravleniya torgovli, g.Poltava.
(Retail trade)

KLOVATSKIY, V.

Labor productivity: rise up to 67%. Obshchestv. pit. no. 5:40 My '61.
(MIRA 14:5)

1. Nachal'nik planovo-ekonomicheskogo otdela Upravleniya torgovli obliapolkoma.
(Restaurants, lunchrooms, etc.—Labor productivity)

KLOVATSKIY, V.

The province trade administration should have more rights. Sov.torg 34 no.3:42 Mr '61.   (MIRA 14:2)

1. Nachal'nik planovo-ekonomicheskogo otdela Upravleniya torgovli oblispolkoma, Poltava.
              (Ukraine—Retail trade)

ZAYEZDNYY, A.M. Prinimali uchastiye; RAKHOVICH, L.M.; KLOVSKIY, D.D.;
PAK, I.N.;

[Tables and formulas of sums of series of the type $\sum_{n=1}^{\infty} e^{-rn^2} {\cos \atop \sin} nx$

and $\sum_{n=1}^{\infty} \frac{e^{-rn^2}}{n} {\cos \atop \sin} nx$] Tablitsy i formuly summ riadov vidov

$\sum_{n=1}^{\infty} e^{-rn^2} {\cos \atop \sin} nx$ i $\sum_{n=1}^{\infty} \frac{e^{-rn^2}}{n} {\cos \atop \sin} nx$. Pod red. A.M. Zaezdnogo.

Leningrad, 1958. 73 p.   (MIRA 15:12)
    (Series) (Mathematics—Tables, etc.)

USSR/Physics - Frequency characteristics   FD-3049

Card 1/2   Pub. 153 - 18/23

Author   :   Klovskiy, D. D.

Title   :   Approximate graphical analytical method for the construction of
                the frequency characteristics of a linear system according to
                transient characteristics

Periodical :   Zhur. tekh. fiz., 25, February 1955, 333-338

Abstract   :   Recently considerable attention has been given to the calculation
                of transient characteristics from given frequencies (V. V. Solo-
                donvinkov, "Use of trapezoidal frequency characteristics in analy-
                sis of properties of automatic regulation systems," Avtom. i telem.,
                10, No 5, 1949; A. A. Voronov, "Approximate construction of curves
                of transient process from real frequency characteristics," ibid.,
                13, No 6, 1952); however, the impulse methods and correspondingly
                the transient characteristics are so prevalent that great interest
                is in the reverse transition, namely from transient characteristics
                to frequency. In the present work the authors expound a practical

Card 2/2   PD-3049

Abstract   : applied method of just such a conversion, which method is based
                on the notion of the approximation of a given curve by a sum of
                triangles as proposed by A. A. Voronov (op. cit.) in connection
                with the familiar relation between the frequency characteristic
                $K(jw)$ and transient characteristic $h(t)$ determined by the expres-
                sion: $K(jw) = jw \int a(t) \cdot \exp(-jwt) dt$ (t=0 to ∞).

Institution : -

Submitted   : October 8, 1954

9(3)

AUTHOR: Klevskiy, D.D.   SOV/142-2-1-9/22

TITLE: The Solution of the Differential Equation of a
            Superregenerator (O reshenii differentsial'nogo
            uravneniya sverkhregeneratora)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - radiotekh-
            nika, 1959, Vol 2, Nr 1, pp 71-79 (USSR)

ABSTRACT: The author used the BWK method for the approximated
            solution of the differential equation of a super-
            regenerator. The BWK method was developed by Bril-
            louin, Wentzel and Kramers in 1926 for the approxi-
            mated solution of wave mechanics. Using this method,
            Brillouin developed the approximated solution of the
            Hill equation. The author states that it is possible
            to convert the differential equation of a superre-
            generator, working in linear operation, to a Hill
            equation. Figure 1 shows the principal circuit ar-
            rangement of such a superregenerator. Its differ-
            ential equation may be written in the following

Card 1/3   form:

The Solution cf the Differential Equation of a Superregenerator

$$\frac{d^2u}{dt^2} + 2\left(f_1 - f_2\right)\frac{du}{dt} + \omega_0^2 u = \omega_0^2.$$

and after performing the necessary transformations,
it will correspond to a Hill equation:

$$\frac{d^2y}{dt^2} + \omega_0^2\left[1 + \frac{d\lambda}{dt}\cdot\frac{1}{\omega_0^2} - \frac{f_1^2}{\omega_0^2} + \frac{\cdots}{\cdots} - \frac{f^2}{\cdots}\right]y = 0,$$

Then the author obtains the following form for the
general solution of the differential equation of
the superregenerator:

$$u = A\cos + B\sin\left(\cdots^{-f_2 t}\int f_2 dt + \sin\cdots^{-f_1 t}\int f_2 dt\cdots\right)_0$$

$$\times\left(\cdots^{f_1 t}\int^{-f_2 dt}\cos\cdots dt - \cos\cdots^{-f_1 t}\int^{f_2 dt}\cdots\right)_0$$

Card 2/3

AUTHOR: Klovskiy, D.   SOV/106-59-4-10/13

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)

PERIODICAL: Elektrosvyaz', 1959, Nr 4, p 75 (USSR)

ABSTRACT: In the article "Build-up of Noise and Fading in Trunk
           Radio-relay Lines" (Elektrosvyaz', 1956, Nr 5), V.I.Soforov
           obtained expressions for the signal-to-noise ratio at the
           output of a trunk radio-relay line (Formulae (36) and 37))
           with a γ-distribution of the signal power at the input to
           each station:

$$\gamma(P) = \frac{K^{K+1}}{\Gamma(K + 1)} \; P^K \; e^{-KP} \qquad\qquad (1)$$

           with K as the parameter.
           In the article, it was asserted that the relationships
           obtained were true for $K \geq 2$ but additional investigation
           was necessary to show that they also apply for
           $1 < K < 2$. To demonstrate this, it is sufficient to show
           that the expressions obtained by Soforov for the mean value

Card1/2 $M\xi$ and the mean square value $M\xi^2$ of the random value ξ

Letter to the Editor   SOV/106-59-4-10/13

(the inverse of the power P) are true, not only when K $\geq$ 2 but also when K $>$ 1 . This the author demonstrates by proving that:

$$M \xi - 1, \quad K > 0 \tag{7}$$

$$M \xi^2 = \frac{K}{K - 1}, \quad K > 1 \tag{8}$$

which agree with the theory previously obtained for K $\geq$ 2 and thus prove that Eqs (36) and (37) are also applicable when K $>$ 1 .
There are 2 Soviet references.

Card 2/2

KLOVSKIY, D. D., Cand Tech Sci -- (diss) "Static-resistance of proce-
dures of discrete information in channels with variable parameters.
(Comparison between various communications systems and the possibility
of utilization in electronnic computing machines)." Leningrad, 1960.
19 pp; (Ministry of Communications USSR, Leningrad Electrical Engineering
Inst of Communications im Prof M. A. Bonch-Bruyevich); 240 copies; price
not given: (KL, 21-60, 124)

KLOVSKIY, D. D.,

"Interference Immunity of the Reception of Descrete Information in Channels with Variable Parameters." Dissertation for the Degree of Candidate of Sciences, Leningrad Electrotechnic Inst. of Communication im. M. A. Bonch-Bruyevich. Defense held on 13 May 1960

An analysis is made of the potential capabilities of different communication systems, under the influence of fluctuation noise and fading. The optimal criteria for coherent and incoherent reception of discrete information and evaluated for a broad class of channels. Receiver circuits are constructed on modulating and on digital basis, acting in accordance with these criteria. The interference immunity if calculated for a broad class of communication circuits and channels with variable parameters and for many practical circuits.

Izv Vysshikh ucheb. zaved. MVISSO SSSR po razdelu Radiotekhnika, vol. 6, No. 1, 1963 p. 98-102 (original checked--Cand. of Sciences as in original.)

KLOVSKIY, D. D.

Potential interference rejection in shortwave radiotelegraphy.
Elektrosviaz' 14 no.9:3-11 S '60.   (MIRA 13:9)
                    (Radiotelegraph)

KLOVSKIY, D.D.

Potential interference rejection with fading of the signal.
Radiotekhnika 15 no. 5:17-25 My '60.   (MIRA 14:4)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva
radiotekhniki i elektrosvyazi.
                    (Radio--Interference)

S/044/61/000/001/013/013
C111/C222

6.4400

AUTHOR: Klovskiy, D.D.

TITLE: On potential noise proof feature under consideration of the
            dying away and the noise in the communication channel

PERIODICAL: Referativnyy zhurnal, Matematika, no.1, 1961, 32,
            abstract 1V 201. ("Tr.Nauchno-Tekhn.konferentsii Leningr.
            elektrotekhn. in-ta svyazi" Vyp.3, L.,1959, 11-22)

TEXT: The methods of the statistical solutions are applied for
the separation of the periodic random signal out of its mixture with
noise.

[Abstracter's note: Complete translation.]

Card 1/1

20071

9.1000 (also 3402, 1127, 1103)

S/108/61/016/003/003/006
B116/B205

AUTHOR: Klovskiy, D. D., Member of the Scientific and Technical
Society for Radio-Engineering and Electrocommunication

TITLE: Potential noise-proof feature in the reception of discrete
information with spaced antennas

PERIODICAL: Radiotekhnika, v. 16, no. 3, 1961, 22-30

TEXT: On similar conditions and with the aid of the same mathematical
data which the author used in an earlier paper (Ref. 1: "Radiotekhnika",
v. 15, no. 5, 1960) the author solves problems of the reception by means
of spaced antennas. There are four kinds of reception of this type:
time, frequency, space, and polarization reception. The last two are
termed diversity antenna reception. In the first chapter the author
gives criteria for the optimum spaced coherence and incoherence reception
in the case of fluctuation disturbance. The amplitudes of the signals
received in the individual spaced branches are distributed according to
the generalized Rayleigh law without being correlated. In the second
chapter the author determines the potential noise-proof feature for a

Card 1/8

20071
3/108/61/016/003/003/006
B116/B205

Potential noise-proof feature ...

wide class of systems of communications with active break. The relations
obtained here hold for all mentioned types of reception. It is assumed
that during the period T (duration of the signal pulse) the transmitter
is capable of transmitting one of the m possible positions of the
signal $X_i(t)$ (i = 1, 2, 3, ..., m) with the same probability. Further-
more, it is assumed that in each spaced branch these positions - if
expanded into Fourier series - have series coefficients which are not
equal to zero in the case of one frequency only. The signals show
selective fading; no correlation of the signals exists in the individual
antennas. The oscillations (signal plus interference) during the time T
(in the individual branches) are designated with $X_1'(t)$, $X_2'(t)$, ..., $X_r'(t)$, ...
..., $X_B'(t)$ (B is the number of the spacing branches). The criterion for
an ideal reception and the realization are essentially simplified if
the energies of all signal positions to be expected in the individual
spaced branches are equal. Such systems are termed systems with active
break. They have the reception criterion

Card 2/8

20071

S/108/61/016/003/003/006
3116/3205

Potential noise-proof feature ...

$$\sum_{r=1}^{s} Z_{i,r}^2 + Z_{i,r}^{**} + Z_{i,r} a_r(0) + Z_{i,r} b_r(0) > \sum_{r=1}^{s} Z_{j,r}^2 + Z_{j,r}^{**} +$$
$$+ Z_{j,r} a_r(0) + Z_{i,r} b_r(0). \tag{10}$$
$$j = 1, 2, 3, \dots, m \, (j \neq i).$$

where   are

$$a_r(0) = \frac{\gamma_0 \cos \psi_r(0) \, \sigma^2}{\sigma_0^2}, \quad b_r(0) = \frac{\gamma(0) \sin \psi_r(0) \, \sigma^2}{\sigma_0^2}. \tag{11}$$

$Z_{i,r} = \int_0^T X_r'(t) \, X_{i,r}(t) dt$ (5), $X_{i,r}(t)$ is the i-th signal position in
the r-th spacing branch. $Z_{i,r}^*$ is conjugate to $Z_{i,r}$ according to Hilbert,
σ^2 is the specific output of the additive fluctuation noise in the channel.
$\psi_r(0)$ is the phase shift in the channel of the stabilized component
reaching the r-th spaced branch. $\gamma(0) = \gamma_r(0)$ is the transfer ratio of

Card 3/8

20071

S/108/61/016/003/003/006
B116/B205

Potential noise-proof feature ...

the channel for the stabilized component. In analogy, the optimum
criterion for the incoherence reception with systems with active phase
is obtained:

$$\sum_{r=1}^{B} V_{l,r}^2 + \frac{a^4}{2\sigma_0^2}\left(\frac{1+a^2+\bar{h}^2}{1+a^2}\right)\ln I_o\left(\frac{2\tau(0)V_{l,r}(1+a^2)}{\sigma^2(1+a^2+\bar{h}^2)}\right) >$$

$$> \sum_{r=1}^{B} V_{j,r}^2 + \frac{a^4}{2\sigma_0^2}\left(\frac{1+a^2+\bar{h}^2}{1+a^2}\right)\ln I_o\left(\frac{2\tau(0)V_{j,r}(1+a^2)}{\sigma^2(1+a^2+\bar{h}^2)}\right). \quad (16)$$

$$j = 1, 2, 3, \ldots, m \,(j \neq l).$$

where $V_{1,r} = \sqrt{z_{1,r}^2 + z_{1,r}'^2}$ (15); $\overline{h^2}$ is the statistical mean value of
the ratio between signal position energy and specific noise energy.
When determining the potential noise-proof feature in several spaced
channels only systems with active break are studied and formula

Card 4/8

20071

S/108/61/016/003/003/006
3116/3205

"Potential noise-proof feature ...

$$
p = 1 - P_{npas} = 1 - \frac{\exp\left[-\frac{Ba^2}{h^2}(m + ma^2 + \bar{h}^2)\right]}{2^{\frac{m}{2}}(B+1)\left[\frac{Ba^2(1+a^2)}{h^2}\right]^{(B-1)\frac{m}{2}}\left(\frac{1+a^2+\bar{h}^2}{1+a^2}\right)^{\frac{B-1}{2}}} \times
$$

$$
\times \int_0^\infty x^{\frac{B-1}{2}} \exp\left(-\frac{x}{2}\right) I_{B-1}\left(\sqrt{\frac{2Ba^2(1+a^2+\bar{h}^2)x}{h^2}}\right) \times
$$

$$
\times \left[\int_0^{x\left(\frac{1+a^2+\bar{h}^2}{1+a^2}\right)} y^{\frac{B-1}{2}} \exp\left(-\frac{y}{2}\right) I_{B-1}\left(\sqrt{\frac{2Ba^2(1+a^2)y}{h^2}}\right) dy\right]^{m-1} dx, \quad (23)
$$

is derived for the coherence reception for the probability of an incorrect reception of the signal element. Formula

Card 5/8

Potential noise-proof feature ...

$$p = 1 - \Gamma_{npee} = 1 - \frac{\exp\left[-\frac{Ba^2 h_i^2}{1+a^2+h^2}\right]}{2^{\frac{B-1}{2}}\left(\frac{Ba^2 h_i^2}{1+a^2+h^2}\right)^{\frac{B-1}{2}}} \int_0^\infty x^{\frac{B-1}{2}} \exp\left(-\frac{x}{2}\right) I_{B-1} \times$$

$$\times \left(\sqrt{\frac{2Ba^2 h_i^2 x}{1+a^2+h^2}}\right)\left\{1 - \exp\left[-\frac{x(1+a^2+h^2)}{2(1+a^2)}\right]\sum_{r=0}^{B-1}\left[\frac{x(1+a^2+h^2)}{2(1+a^2)}\right]^r \frac{1}{r!}\right\}^{n-1} dx. \quad (26)$$

is derived for the incoherence reception. $I_{B-1}(x)$ is the modified Bessel function of (B-1)-th order. $P_{\Pi pa\ell}$ is the probability of a correct reception of the signal element. It can be seen from these formulas that with the same number B of spaced branches and with the same values of a^2 and h^2 the error probability (in systems with active break) differ only slightly in the coherence and incoherence reception. Hence,

Card 6/8

Potential noise-proof feature ...

20071
S/108/61/016/003/003/006
B116/B205

coherence reception in such systems is inexpedient for such systems.
Finally, the author compares the noise-proof feature of the various
spaced types of reception with the single reception with the same rate of
information transfer and with the same mean output of the transmitter.
The result is shown in Fig. 1. L. M. Fink is mentioned. There are
1 figure and 2 Soviet-bloc references.

SUBMITTED: July 5, 1960

Card 7/8

KLOVSKIY, D.D.

Interference rejecting feature of diversity reception in discontinuous
communication systems. Isv. vys. ucheb. zav.; radiotekh. 5 no.2:250-
256 Mr-Ap '62. (MIRA 15:7)

1. Rekomendovana kafedroy teoreticheskoy radiotekhniki Kuybyshevskogo
elektrotekhnicheskogo instituta svyazi.
(Radio--Receivers and reception) (Information theory)

39709
S/142/62/005/002/012/019
E192/E382

6.4410
6 4400

AUTHOR: Klovskiy, D.D.

TITLE: Noise-immunity of the diversity recoption in inter-
mittent receiving systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiotekhnika, v. 5, no. 2, 1962. 250 - 256

TEXT: An intermittent communication system of the type
described by G.F. Montgomery (PIRE, 1957, 45, no. 12) is con-
sidered. The information appearing at the individual diversity
branches is received simultaneously under suitable conditions and
each diversity branch is provided with one transmitter and a
reverse control channel. The information is stored in individual
diversity channels and is then subjected to suitable synchronous
processing. The intermittent communication systems can be based
either on frequency or angular diversity (A.S. Nemirovskiy -
Elektrosvyaz', 1960, no. 8). During a signal element of duration
T the transmitter can transmit any of the signal positions
$X_i(t)$ where $i = 1, 2$ with equal probability. In the case of
frequency diversity the signals over the interval T can be
Card 1/4

Noise-immunity of ....

S/142/62/005/002/012/019
E192/E382

represented by the Fourier series and have B frequency compon-
ents where B is the number of the diversity branches; only
one component is different from zero in angular diversity systems.
The transfer functions Y_r of the individual diversity branches
vary independently of each other but they are identical for
both positions of the signal in any given channel. For each
individual r-th diversity branch a signal is received when the
ratior of the signal-element energy to the power density
of the fluctuation noise σ^2 is greater than a certain threshold
value R , i.e. if the following inequaltiy is met:

$$\frac{Y_r^2 E}{\sigma^2} > R \qquad\qquad (1) .$$

First, the criterion of ideal reception is introduced
(the author - Radiotekhnika, 1961, 16, no. 3) and a general
formula for the mean probability of error during coherent
reception and slow fadings is introduced. By assuming that
Card 2/4

Noise-immunity of S/142/62/005/002/012/019
                                          E192/E382

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Fig. 1:
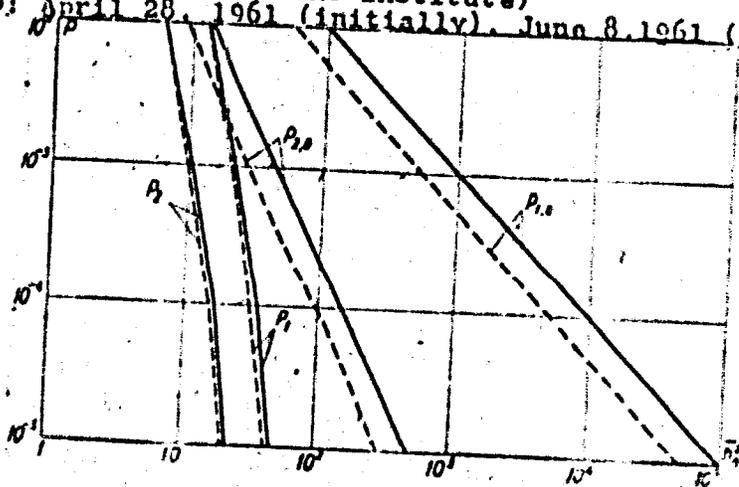
Card 4/4

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ACCESSION NR: AP3000336   fi/0142/63/006/002/0193/0197

AUTHOR: Klovskiy, D. D.

TITLE: Noise immunity through diversity reception in intermittent communications
systems

SOURCE: Izv. VUZ: Radiotekhnika, v. 6, no. 2, 1963, 193-197

TOPIC TAGS: diversity reception, intermittent communication system, signal ele-
ment, fluctuating interference, threshold level, average error probability, re-
ception interference

ABSTRACT: The possibility of the use of diversity reception (diversity in terms
of frequency and arrival angle of the beam) as a means of increasing the noise
immunity of an intermittent communications system is analyzed. The system as-
sumes a common transmitter and a feedback control channel. The average error
probability in the system was determined analytically and a comparison was made
between single and paired noncoherent reception at an identical average speed
of transmission. Under these conditions, paired reception by means of diversity
antennas provided some energy gain as compared to single reception. Thus, at

Card 1/2